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EXAMINER

PHAM, THIERRY L

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2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/723,277	Applicant(s) BERKEMA ET AL.	
	Examiner Thierry L. Pham	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/25/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- This action is responsive to the following communication: Nonprovisional application filed on 11/25/03.
- Claims 1-35 are currently pending.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 11/25/03 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74. Brief description of fig. 7 (drawing) is missing from the specification. Appropriate action is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 34-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claimed invention is a computer related invention. The Computer-Implemented Invention Guidelines issued by the U.S. Patent and Trademark Office describe the procedures for examining such inventions.

The first step is to determine whether the invention as defined by the claims falls within one of the three following categories of unpatentable subject matter: (1) Functional descriptive material

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such as a data structure *per se* or a computer program *per se*, (2) Non-functional descriptive material such as music, literary works or pure data, embodied on a computer readable medium; or (3) A natural phenomenon such as energy or magnetism. The invention as defined by the claims is not a natural phenomenon or pure data, however, it is a computer program *per se*, which does not mount/store on any computer-readable medium; therefore, these claims are rejected for non-statutory basis. Media as cited in claims 34-35 is directed to a non-statutory subject matter, for example, media can be interpreted as a “paper media” containing printed computer program instructions. The examiner recommends the applicants to replace “media” with “computer readable medium” so it compliances with **35 U.S.C. 101**.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohta (US 20010029531)

Regarding claim 1, Ohta discloses a hard copy imaging system (imaging system as shown in fig. 1), comprising:

- a first communications network (wireless network connecting network 15 to print station via using wireless protocol 16 and 12A1 and 12B1, fig. 1, par. 37-38) configured to operate in a first communication link format;
- a second communications network (wired LAN network connecting client device 14 and print server 13, fig. 1, par. 37-38) configured to operate in a second communication link format;
- a plurality of hard imaging devices (print stations 12A and 12B, fig. 1) communicatively coupled to the first communications network;

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- an external device (device client 14 or portable device 11, fig. 1) communicatively coupled to the second communications network, the external device being configured to forward a print request (client machine 14 transmits print request to printer server 13 via wired network as shown in fig. 2 via dash lines, par. 38) to at least one of the plurality of hard imaging devices for processing; and
- a print server (print server 13, fig. 1) communicatively coupled to the plurality of hard imaging devices via the first communications network and to the external device via the second communications (print server configured to communicate with print stations and client device, fig. 1), network, the print server being configured to receive the print request from the external device (print request from client device 14 or portable device 11, fig. 2, par. 38) in the second communication link format (wired network connecting client device and print server, fig. 2, par. 38) and automatically generate a translated print request in the first communication link format (the request is then converted and transmitted to print station device via wireless network, fig. 5, in other words, print job request is transmitted to print server via using wired network and wherein the print job is then transmitted to print station via using wireless network) for processing by at least one of the plurality of hard imaging devices (print job to be processed by print stations 12A, 12B or 12C, figs. 3-5), the print server being further configured to automatically (print server communicates to plurality of external devices including client device, portable device, and print station devices, figs. 1-5) generate and communicate a signal to the external device, the signal being indicative of individual hard imaging devices among the plurality of hard imaging devices configured to be supported by the print server (note that print stations can be communicated with print server via both wired and wireless network, fig. 1-4, pars. 37-38) even if the plurality of hard imaging devices are not configured to support the second communication link format.

Regarding claim 2, Ohta further discloses the system of claim 1, wherein a user of the external device being enabled to identify the individual hard imaging devices (identify which print station is selected for printing, par. 40-41) to service the print request generated in the second communication format and sent via the print server, and wherein the first and second

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communication link formats are configured to have similar communication link formats (transmission between print server and external devices can be in form of wireless or wired, fig 1-4) but with differing communication protocol layers (different communication protocol such as ftp, par. 41).

Regarding claim 3, Ohta further discloses the system of claim 1, wherein the first communications network is a local area network (network 15, figs. 1-4).

Regarding claim 4, Ohta further discloses the system of claim 1, wherein the second communications network comprises one of a wired network or a wireless network (wireless network using wireless receiver/transceiver 16, fig 1-4).

Regarding claim 5, Ohta further discloses the system of claim 1, wherein the print server is configured to support multiple discovery techniques including Bluetooth service discovery protocol (par. 40), and Universal Plug and Play Service Discovery protocol (par. 40).

Regarding claim 6, Ohta further discloses the system of claim 1, wherein the print server is configured to advertise to the external device that the print server supports a plurality of communication protocols and standards (print server can be communicated with external devices via both wired and wireless network, fig. 1-4, pars. 37-38) even if the individual hard imaging devices of the plurality of hard imaging devices are not configured to support the plurality of communication protocols and the standards.

Regarding claim 8, Ohta further teaches wherein the print server is configured to support a plurality of communication protocols (ftp, Internet, email protocols, Bluetooth, par. 41) and operating systems (operating system such as Windows and Linux can be configured to run on any server devices including print server, par. 46).

Regarding claim 9, Ohta further discloses the system of claim 8, wherein the print server comprises: a communications interface (NIC 23, USB, SCSI, and et al via I/O controller 28, fig. 9) configured to communicate with the first and second communications networks; a storage device (RAM or DISK 24, fig. 9) configured to store information related to the hard imaging devices and instructions to process print requests received from the external device; and processing circuitry (ref. 30, fig. 9) configured to communicate with the external device and individual ones of the plurality of hard imaging devices, wherein communication with the external device being performed using the second communication link format and communication with the individual ones of the plurality of hard imaging devices being performed using the first communication link format.

Regarding claim 10, Ohta further teaches the system of claim 9, wherein the processing circuitry of the print server comprising: a first memory (RAM 26, fig. 9) device configured to store data for operation of the print server; a second memory device (ROM 27, fig. 9) configured to store firmware data; status indicator (display panel 31, fig. 9) devices configured to provide an indication of status (status, fig. 18) of the hard imaging devices; and a plurality of physical layer components (I/O controller 28 and NIC 23, fig. 9) configured to convert print requests in the second communication link format to the first communication link format (e.g. converting received wireless signals to LAN wired signals).

Regarding claim 11, Ohta further teaches the system of claim 10, wherein print requests from the external device are received via the second communication network by one of the physical layer components (e.g. print request is received via wired LAN network 15, fig. 1 & 9), processed by the processing circuitry, and transmitted to the first communication network via another of the physical layer components (from NIC 23 to I/O controller 28, fig. 9).

Regarding claims 12 & 22, Ohta further teaches the system of claim 10, wherein the processing circuitry further comprises: a plurality of media access controllers (data reader, fig. 9, also, media access controller are well known and widely implemented in the art), individual MACs being configured to provide link access to a specific communication protocol; a first

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controller configured to control operations of the first memory device; and a second controller configured to control operations of the second memory device.

Regarding claim 13, Ohta further teaches the system of claim 12, wherein the processing circuitry further comprises: information (disk 24, par. 46) related to higher layer network protocols; and bridge logic (bridge connecting all device within controller 30, fig. 9) to enable flow of information between the first and second communication networks (e.g. NIC 23 and I/O controller 28, fig. 9).

Regarding claim 14, Ohta further teaches the system of claim 1, wherein the print server being configured to function as a proxy server (proxy server, par. 52) to requests from the external device to provide functionalities not supported by the print server.

Regarding claim 15, Ohta further teaches the system of claim 14, wherein the print server being configured to automatically forward requests (forward request to external devices including portable devices, fig. 1-4), received from the external device, that are not understood by the print server to an external service for further processing.

Regarding claim 16, Ohta further teaches the system of claim 1, wherein the hard imaging devices comprise a printer (print station, fig. 14).

Regarding claim 17, Ohta further teaches the system of claim 1, wherein individual ones of the plurality of hard imaging devices being configured to implement a common printing protocol (par. 41), and the print server being configured to convert print requests from the external device to the common printing protocol.

Regarding claim 18, Ohta further teaches a print server system (print server system, fig. 1), comprising:

first and second communication networks (wireless and wired network, fig. 1) configured to operate in distinct communication link formats;

a plurality of printers ((print stations 12A and 12B, fig. 1) individually configured to process print requests;

an external device (device client 14 or portable device 11, fig. 1) communicatively coupled to the second communications network, the external device configured to generate a print request for processing by at least one of the plurality of printers;

a print server (print server 13, fig. 1) communicatively coupled to the first and second communication networks, the print server being communicatively coupled to the plurality of printers (fig. 1) via the first communications network and to the external device via the second communications network, the print server being configured to receive a print request from the external device in a second communication link format and generate a translated (the request is then converted and transmitted to print station device via wireless network, fig. 5, in other words, print job request is transmitted to print server via using wired network and wherein the print job is then transmitted to print station via using wireless network) print request in a first communication link format that is different from the second communication link format, the translated print request being forwarded to at least one of the plurality of printers for processing, the print server being further configured to communicate with the external device with information regarding individual printers supported by the print server even if the individual printers are incompatible (note that print stations can be communicated with print server via both wired and wireless network, fig. 1-4, pars. 37-38, clearly an advantage over applicant's invention) to directly process a print request from the external device, and the print server being configured to function as a proxy server (proxy server, par. 52) for requests, from the external device, to enable functions not supported by the print server.

Regarding claim 19, Ohta further teaches the system of claim 18, the print server comprising: a communications interface (network 15, fig. 1) being configured to communicate with the first and second communications networks; a storage device (RAM or disk, fig. 9) being configured to store information related to the plurality of printers and instructions to process print requests received from the external device; and processing circuitry (CPU 25, fig. 9) being

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configured to communicate with the external device and individual ones of the plurality of printers, wherein communication with the external device is performed using a second communication link format (wired LAN network connecting client device 14 and print server 13, fig. 1, par. 37-38) and communication with the individual ones of the plurality of printers is performed using a first communication link format (wireless network connecting network 15 to print station via using wireless protocol 16 and 12A1 and 12B1, fig. 1, par. 37-38) that is different from the second communication link format.

Regarding claim 20, Ohta further teaches the system of claim 19, wherein the processing circuitry of the print server comprises: a volatile memory (RAM 25, fig. 9) configured to store data for operation of the print server; a non-volatile memory (ROM 26, fig. 9) configured to store firmware data; and a plurality of physical layer components (I/O controller and NIC 23 and CPU 25, fig. 9) configured to convert print requests from a communication link format to another distinct communication link format.

Regarding claim 21, Ohta further teaches the system of claim 20, wherein print requests from the external device are received via the second communication network by one of the physical layer components (via NIC 23, fig. 9), processed by the processing circuitry (CPU 25, fig. 9), and transmitted to the first communication network via another of the physical layer components (e.g. USB or SCSI, fig. 9).

Regarding claim 23, Ohta further teaches the system of claim 18, wherein the print server is configured to forward requests (forward request to external devices including portable devices, fig. 1-4), from the external device, that are not understood by the print server to an external service.

Regarding claim 24, Ohta further teaches a printer server system (fig. 1) comprising: a printer server means (print server 13, fig. 1) for communicatively coupling distinct communication networks (wired and wireless network, fig. 1) to enable communication therebetween; a first communication means (wireless network using transceiver 16, fig. 1) for

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communicatively linking the print server means to a plurality of printers (print station 12A and 12B, fig. 1); a second communication means (wired network connecting print server to client device 14, fig. 1) for communicatively linking the print server to an external device; and the print server means configured for receiving a print request (print request from client device 14 or portable device 11, fig. 2, par. 38) from the external device in a second communication link format and automatically generating a translated print request (the request is then converted and transmitted to print station device via wireless network, fig. 5, in other words, print job request is transmitted to print server via using wired network and wherein the print job is then transmitted to print station via using wireless network), in a first communication link format that is different from the second communication link format, the translated print request being forwarded by the printer server means for processing by at least one of the plurality of printers, the print server means being configured for automatically generating and communicating a signal to the external device, the signal being indicative of individual printers among the plurality of printers that are supported by the print server means (print server can communicate with external devices via both wired and wireless network, fig. 1-4, pars. 37-38, clearly an advantage over applicant's invention) even if the plurality of printers are not configured to support the second communication link format.

Regarding claim 25, Ohta further teaches the print server system of claim 24, wherein the print server means being configured to support multiple discovery techniques including Bluetooth (Bluetooth, par. 40) service discovery protocol and Universal Plug and Play Service Discovery protocol (USB, fig. 9).

Regarding claim 26, Ohta further teaches a print server system (fig. 1) comprising: a print server (print server 13, fig. 1) communicatively coupled to a plurality of printers (print station 12A and 12B, fig. 1) via a first communications network (wireless network using transceiver 16, fig. 1) and to an external device via a second communications network, the first and second communications (wired network connecting print server to client device 14, fig. 1) networks being configured to operate using distinct communication link formats; a communications interface (I/O controller 28 and NIC 23, fig. 9) being configured to communicate with the first

and second communications networks; a storage device (RAM 26, fig. 9) being configured to store information related to the plurality of printers and instructions to process print requests received from the external device; and processing circuitry (CPU 25, fig. 9) configured to communicate with the external device and individual ones of the plurality of printers, wherein communication with the external device being performed using a second communication link format and communication with the individual ones of the plurality of printers being performed using a first communication link format that is different from the second communication link format, the processing circuitry including: a volatile memory configured to store data for operation of the print server; a non-volatile memory (ROM 27, fig. 9) configured to store firmware data; a plurality of physical layer components (I/O controller 28 and NIC 23, fig. 9) configured to convert print requests from a communication link format to another distinct communication link format; and the print server being configured to receive a print request from the external device in the second communication link format and generate a translated print request (the request is then converted and transmitted to print station device via wireless network, fig. 5, in other words, print job request is transmitted to print server via using wired network and wherein the print job is then transmitted to print station via using wireless network) in the first communication link format, the translated print request being forwarded to at least one of the plurality of printers for processing.

Regarding claim 27, Ohta further teaches the print server system of claim 26, wherein the print server being further configured to communicate with the external device with information (par. 40) regarding individual printers, supported by the print server even if the individual printers are incompatible (print server can communicate with external devices via both wired and wireless network, fig. 1-4, pars. 37-38, clearly an advantage over applicant's invention) to directly process a print request from the external device; and further wherein the print server being configured to function as a proxy server (proxy server, par. 52) for requests, from the external device, to enable functions not supported by the print server.

Regarding claim 28, Ohta further discloses a method enabling communication between distinct communication networks (print system with different networks, fig. 1) operating in

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distinct communication link formats, the method comprising: communicatively coupling the distinct communication networks (wired and wireless network, fig. 1) to a print server (print server 13, fig. 1) to enable communication therebetween via the print server; communicatively linking the print server to a plurality of printers (print station 12A and 12B, fig. 1) via a first communication network among the distinct communication networks; communicatively linking the print server to an external device via a second communication network (wired network, fig. 1) among the distinct communication networks; configuring the print server to receive a print request from the external device in a second communication link format and generate a translated print request (the request is then converted and transmitted to print station device via wireless network, fig. 5, in other words, print job request is transmitted to print server via using wired network and wherein the print job is then transmitted to print station via using wireless network), in a first communication link format that is different from the second communication link format, for processing by at least one of the plurality of printers; and configuring the print server to generate and communicate a signal to the external device, the signal including information of individual printers, among the plurality of printers, supported by the print server (print server can communicate with external devices via both wired and wireless network, fig. 1-4, pars. 37-38, clearly an advantage over applicant's invention) even if the plurality of hard printers are not configured to support the second communication link format.

Regarding claim 29, Ohta further teaches the method of claim 28, further comprising enabling a user of the external device to identify the individual printers (identify which print station is selected for printing, par. 40-41) for servicing the print request generated in the second communication link format, wherein the print request is sent via the print server.

Regarding claim 30, Ohta further teaches the method of claim 29, further comprising: configuring the first communications network as a local area network (fig. 1); and configuring the second communications network as a wireless network configured to operate using a protocol selected from the group consisting of a Bluetooth protocol (Bluetooth network, fig. 1, par. 40), a 802.11 communication protocol, and a 802.11b communication protocol.

Regarding claim 31, Ohta further teaches the method of claim 28, further comprising: configuring the print server to support multiple discovery techniques including Bluetooth service discovery protocol (network discovery including Bluetooth, par. 40), and universal plug and play service discovery protocol (USB, fig. 9); and configuring the print server to advertise to the external device that the print server supports a plurality of communication protocols and standards even if the individual hard imaging devices of the plurality of hard imaging devices are not configured to support the plurality of communication protocols and the standards.

Regarding claim 32, Ohta further teaches the method of claim 31, further comprising: receiving print requests (print request from client device 14 or portable device 11, fig. 2, par. 38) from the external device via the second communication network by one of a plurality of physical layer components (I/O controller 28 and NIC 23, fig. 9) of the print server; processing the received print requests by a processing circuitry of the print server; transmitting the processed print requests (print request from client device 14 or portable device 11, fig. 2, par. 38) to the second communication network via another of the physical layer components; and configuring the print server to function as a proxy server (proxy server, par. 52) to requests from the external device to provide functionalities not supported by the print server.

Regarding claim 33, Ohta further teaches the method of claim 32, further comprising automatically forwarding requests (forward request to external devices including portable devices, fig. 1-4) from the external device, that are not understood by the print server, to an external service for further processing.

Regarding claim 34, Ohta further teaches an article of manufacture, comprising: processor-usable media (storage media such as RAM, par. 46-47) comprising programming configured to cause a print server apparatus of a print server system (print server system, fig. 1) to: receive a print request (client machine 14 transmits print request to printer server 13 via wired network as shown in fig. 2 via dash lines, par. 38) from an external device in a second communication link format; generate a translated print request (the request is then converted and transmitted to print station device via wireless network, fig. 5, in other words, print job request is

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transmitted to print server via using wired network and wherein the print job is then transmitted to print station via using wireless network) in a first communication link format that is different from the second communication link format for processing by individual ones of a plurality of printers; and generate and communicate a signal to the external device, the signal being indicative of the individual printers supported by the print server (print server can communicate with external devices via both wired and wireless network, fig. 1-4, pars. 37-38, clearly an advantage over applicant's invention) even if the plurality of hard imaging devices are not configured to support the second communication link format.

Regarding claim 35, Ohta further teaches the article of manufacture of claim 34, wherein the programming comprises programming configured to enable the print server advertise (network discovery, par. 40) to the external device that the print server is configured to support a plurality of communication protocols and standards even if the individual printers are not configured to support the plurality of communication protocols and the standards.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta as described in claims 1 above, and in view of Wu et al (US 20040130744).

Ohta discloses an imaging system involves a printer server communicating with plurality of different external devices via plurality of communication network (e.g. wired or wireless), but fails to explicitly teach and/or suggest the print server is configured to incorporate security features to only permit a user of the external device to forward a print request to individual ones of the plurality of hard imaging devices having the security features.

Wu, in the same field of endeavor for imaging system (imaging system having plurality of client devices, an intermediate print server, and plurality of printers, fig. 1), teaches a well-known example of wherein the print server (print server 102, fig. 1) is configured to incorporate security features (user ID and password are required to log into the print server, par. 39, fig. 8) to only permit a user of the external device (external devices 106, 108, and/or 110, fig. 1) to forward a print request (print request 3) to individual ones of the plurality of hard imaging devices (printers 1112, 114, and/or 116, fig. 1) having the security features.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print server of Ohta to include security features such as user ID and password prior to logging into the print server as taught by Wu because it enhances security measures and to prevents unauthorized users from accessing the print server (e.g. in other words, only authorized users are allowed to log into the network print server for printing).

Therefore, it would have been obvious to combine Ohta with Wu to obtain the invention as specified in claim 7.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

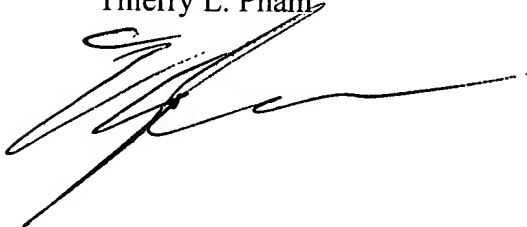
- US 20040071123 to Shin, teaches a well-known example of communication server having plurality of communication protocol layers for converting from one communication link protocol to another communication link protocol, for example, converting from Bluetooth signals to wireless LAN signals (figs. 3-9).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thierry L. Pham




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